

RURAL DISTRICT COUNCIL  
OF  
SADDLEWORTH.

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REPORT

ON THE

Health of the Rural District of Saddleworth,

FOR THE YEAR 1898,

BY

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FELLOW OF THE INCORPORATED SOCIETY OF MEDICAL  
OFFICERS OF HEALTH,

AND

FELLOW OF THE BRITISH INSTITUTE OF PUBLIC HEALTH, ETC.

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MR. JOHN THOMAS BRADBURY.



SUNNYSIDE,

DOBCROSS,

JANUARY, 1899.

*To the District Council of the Rural Sanitary District of  
Saddleworth.*

GENTLEMEN,

During the last year, 307 births and 198 deaths have been registered. Of the 307 births, 155 were males, and 152 females. There were 18 illegitimate births. The birth-rate is 23·4 per 1,000 inhabitants, these being estimated at 13,128 up to the middle of 1898. During the last few years the birth-rate was as follows :

1893.	1894.	1895.	1896.	1897.	1898.
<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
28·7	28·69	24·3	22·8	21·7	23·4.

Of the 307 children born, 32 died under 1 year of age, which means that 104 children die, out of every 1,000 born, under 1 year of age. The natural increase of population, represented by the excess of births over deaths, was 110. I have no information as to the number of still-births.

The average density of population per acre was, according to the last census, 1·3, if the unenclosed moorland be excluded. There were then 2,776 inhabited houses, giving an average of 4·6 inhabitants to each house.

During the year, 47 new houses have been erected, of good design, and with good sanitary arrangements.

The deaths were 198, or the same as 1897. Of these deaths, 99 were males, and 99 females. The death-rate is 15 per 1,000 inhabitants. For comparison, I give the death-rates for the past few years :

1893.	1894.	1895.	1896.	1897.	1898.
<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
16·8	16·3	16·7	13·5	15·0	15·0

The 198 deaths include one which occurred at Wadsley Asylum, from Phthisis.

Classified according to AGE the deaths are as follows :

Under 1 year .....	32
Between 1 year and 5 .....	17
„ 5 „ 15 .....	4
„ 15 „ 25 .....	8
„ 25 „ 65 .....	79
Over 65 .....	58

Tabulated according to the CAUSE OF DEATH the numbers are :

Smallpox .....	0
Scarlet Fever .....	0
Diphtheria .....	0
Membranous Croup .....	0
Typhoid Fever .....	1
Puerperal Fever.....	0
Erysipelas .....	0
Measles .....	3
Whooping Cough .....	1
Diarrhœa and Dysentery .....	2
Rheumatic Fever .....	0
Phthisis .. .....	15
Bronchitis, Pneumonia, and Pleurisy.....	27
Heart Disease .....	29
Influenza .....	2
Inquests .....	12
Uncertified .....	13
Other diseases not classified .....	93

The deaths from the seven principal Zymotic diseases were 7, giving a zymotic death-rate of 0·53 per 1,000 inhabitants, as contrasted with 0·73 in 1897, 1·2 in 1896, and 1·6 in 1895.

For comparison the Zymotic death-rate since 1892 was :

Seven Zymotic Diseases.		Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Fevers and Typhoid	Diarrhœa.
1892	2·23	...	0·768	0·23	0·3	0·53	0·38	...
1893	1·3	0·15	0·076	0·228	0·228	0·228	0·30	0·076
1894	0·99	...	0·152	0·228	...	0·228	0·228	0·152
1895	1·6	0·306	0·612	0·0765	0·153	0·306	...	·2295
1896	1·2	...	0·076	0·23	0·45	0·37	·076	...
1897	0·73	...	0·22	...	0·22	...	0·22	0·07
1898	0·53	...	0·22	...	...	0·075	0·075	0·15



Twenty-seven deaths were registered from Bronchitis, Pneumonia, and Pleurisy, as against 23 in 1897, and 33 in 1896. This is a respiratory death-rate of 2·01 per 1,000. During the past few years it has been as follows :

1893.	1894.	1895.	1896.	1897.	1898.
<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
2·37	2·5	3	2·4	1·76	2·01

There were 15 deaths from Phthisis, which gives a phthisical death-rate of 1·14 per 1,000 inhabitants. For comparison, I give this death-rate for the past few years :

1893.	1894.	1895.	1896.	1897.	1898.
<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>	<u>          </u>
1·6	1·6	1·07	1·2	1·2	1·14

Saddleworth is divided for registration purposes by a road from Standedge to Star Inn, Highmoor, and thence to Mossley. The Uppermill Sub-district includes Diggle Edge, a portion of New Delph, Diggle, Weakey, Woolroad, Dobcross, Tamewater, Wall Hill, Saddleworth Fold, Greenfield, and Royal George. Whilst the Delph Sub-district includes Bleakhey Nook, Castleshaw, Sandbed, and a portion of New Delph, Delph, Austerlands, Slackcote, and Denshaw. The population, according to the census of 1881, was 5,423 in the Delph district, and 7,454 in the Uppermill district ; whilst in that of 1891 it was 5,221 in the former, and 7,778 in the latter. This shows the Delph Sub-district to have had a diminished population of about 200, whilst that of Uppermill Sub-district has shown an increase of 300 inhabitants. The census of 1891 included a fairly large number of navvies and their families, which for the most part were in the Uppermill estimate, but who have, for the most part, left the district.

The Rateable Value of your district is £71,800. The rate is 1/4½ in the £, comprising 9d. in the £ for general expenses, and 7½d. in the £ for special expenses.

The population of the Delph Sub-district is estimated for 1897 as 5,236, and that of Uppermill Sub-district as 7,892.

Tabulated therefore in this manner we have :

	DELPH DISTRICT.		UPPERMILL DISTRICT.	
	1897.	1898.	1897.	1898.
Births .....	122	134	163	173
Males .....	67	75	75	80
Females .....	55	59	88	93
Birth-rate .....	23·3	25·5	20·6	21·9
Illegitimate Births.....	5	8	7	10
Deaths .....	78	97	120	100
Males .....	47	46	69	53
Females .....	31	51	51	48
Death-rate .....	14·9	18·5	15·2	12·6
Uncertified Deaths .....	8	10	3	3
Inquests .....	4	3	7	9
Infant Mortality.....	106·5	126·8	67·4	86·6
Zymotic Death-rate .....	0·2	0·57	0·5	0·5

Classified according to the CAUSE OF DEATH :

	DELPH DISTRICT.		UPPERMILL DISTRICT.	
	1897.	1898.	1897.	1898.
Diphtheria .....	1	0	2	0
Croup .....	0	0	5	0
Enteric Fever.....	2	0	1	1
Measles .....	0	3	3	0
Whooping Cough .....	0	0	0	1
Puerperal Fever.....	1	0	2	0
Diarrhœa.....	1	0	1	2
Phthisis .....	6	6	11	9
Bronchitis, &c. ....	13	12	10	15
Heart Disease .....	10	19	15	10
Influenza .....	0	0	0	2
Other Diseases .....	4	57	70	61

Classified according to AGE :

Under 1 year .....	13	17	11	15
Between 1 and 5 years	10	10	11	7
„    5 „ 15 „ ...	2	3	4	1
„    15 „ 25 „ ...	6	4	7	4
„    25 „ 65 „ ...	28	36	49	43
Over 65 years .....	19	27	38	31

The Notification Returns were as follows :

	DELPH SUB-DISTRICT.		UPPERMILL SUB-DISTRICT.		TOTAL.
Smallpox .....	0	.....	0	.....	0
Scarlet Fever .....	2	.....	13	.....	15
Diphtheria .....	1	.....	1	.....	2
Membranous Croup.....	1	.....	0	.....	1
Enteric Fever .....	4	.....	11	.....	15
Continued Fever .....	0	.....	1	.....	1
Puerperal Fever .....	0	.....	0	.....	0
Erysipelas .....	5	.....	6	.....	11

The distribution in months was in the

	DELPH SUB-DISTRICT.					
	Scarlet Fever.	Diphtheria.	Enteric Fever.	Continued Fever.	Membranous Erysipelas.	Membranous Croup.
January ...	...	...	...	...	1	...
February..	...	...	...	...	...	...
March ...	...	...	...	...	2	..
April ...	1	...	...	...	...	...
May ...	...	...	1	...	...	...
June ...	...	...	...	...	...	...
July ...	1	...	...	...	...	...
August ...	...	...	...	...	...	...
September	...	...	1	...	...	...
October ...	...	1	1	...	...	1
November	...	...	...	...	1	...
December.	...	...	1	...	1	...

## UPPERMILL SUB-DISTRICT.

	Scarlet Fever.	Diphtheria.	Croup.	Enteric Fever.	Continued Fever.	Erysipelas.
January ...	I	...	...	...	...	I
February .	I	...	...	...	...	...
March ...	2	...	...	...	...	...
April ...	...	...	...	2	...	I
May ...	I	...	...	I	...	I
June ...	I	I	...	...	...	...
July ...	...	...	...	...	...	...
August ...	I	...	...	...	...	...
September	I	...	...	I	...	I
October ...	...	...	...	2	I	...
November	5	...	...	4	...	...
December	...	...	...	I	...	2

Classifying the Notification Returns in months, we have in

	DELPH SUB-DISTRICT.	UPPERMILL SUB-DISTRICT.	TOTAL.
January .....	I	2	3
February .....	0	I	I
March .....	2	2	4
April .....	I	3	4
May .....	I	3	4
June .....	0	2	2
July .....	I	0	I
August .....	0	I	I
September.....	I	3	4
October .....	3	3	6
November .....	I	9	10
December .....	2	3	5

Tabulating the deaths according to months, we have :

January .....	6	9	15
February .....	8	8	16
March .....	7	10	17
April .....	12	6	18
May .....	7	5	12
June .....	10	9	19
July .....	7	7	14
August .....	4	10	14
September.....	10	7	17
October .....	11	15	26
November .....	6	9	15
December .....	9	6	15

From these tables we find that October was the unhealthiest month, then November, April, September, June, March, December, January, February, May, June, and July, in order.

There were 45 cases of zymotic diseases notified, with 1 death. There were also 3 deaths from Measles, 2 from Diarrhœa, and 1 from Whooping Cough. Of the notified cases, 13 occurred in the Delph Sub-district and the rest in Uppermill Sub-district.



The zymotic death-rate is 0·53 per 1,000, and is much lower than any I have record of, and when we have only 45 notifications of Infectious Diseases as against 68 in 1897, we have distinct evidence of improvement in sanitation throughout the district.

*Whooping Cough*.—During November and December there have been a few cases of Whooping Cough in Greenfield, one of which resulted in death.

*Measles* has been more or less with us from February to September. In April and May it was widely prevalent, especially in Delph. There were 3 deaths, 1 in Delph, 1 at Highmoor, and 1 at Denshaw. It was found necessary to close the Church School, Delph, for a time, as 30 cases occurred at least in the Infant Department.

*Mumps* has been prevalent during October and November, especially in the Greenfield Sub-district. It was not found necessary to close any of the Schools.

*Influenza* has not been nearly so prevalent, though one death in February and another in June were attributed to it. Both cases being in the Upper mill Sub-district.

*Rheumatic Fever* is by no means uncommon in your district, though it has not been certified as causing death. Many cases of Heart Disease are without doubt caused by this disease.

*Phthisis*.—The number of deaths recorded from Phthisis keeps much the same as in the previous three years. It would be very much reduced if people would only realize that the expectoration of people suffering from consumption is highly contagious when dried, owing to the dried particles being inhaled. All expectorated material should be received in paper, which can then be burnt along with its contents.

The Tuberculin test is now being applied. Unhealthy cattle can now be tested by the Tuberculin test, and by its means many infected cattle have been discovered. The importance cannot be over estimated, as such prevention of the spread of Tuberculosis by milk would undoubtedly greatly reduce the present high death-rate from Tuberculosis throughout the country. Efforts are being made to reduce the enormous death-rate by the action of Sir Wm. Broadbent, Prof. Delépine, Dr. Niven, and many others, by the erection of Sanatoria for the reception of Phthisical patients, in which they will not only be isolated, but live in healthier surroundings, with purer air, more sunshine, and better food.

Everyone, but more especially delicate people and young children should have their milk boiled (which destroys the germs of consumption), particularly if they are not absolutely sure of the healthy condition of the cattle supplying the milk. If any of the members of a herd are suffering from Tuberculosis they can now be discovered by the Tuberculin



test and then destroyed. The destruction of such a cow amongst a herd means that it is prevented from infecting the other cattle, and at the same time from giving milk of a dangerous character, to be mixed with the pure and sound milk.

*Bronchitis, Pneumonia, and Pleurisy.*—These diseases of the respiratory organs are one of the commonest causes of death, and have no doubt, contributed to the cases of Phthisis. This is especially liable when the convalescent patients return to work before they are properly well.

*Smallpox* has been entirely absent. Its advent might, however, prove to be a very serious matter for your district, taking into consideration the large number of unvaccinated children. The Exemption Order has been largely taken advantage of, without any idea of a conscientious objection in many cases, inasmuch as I have been asked already to vaccinate many children for whom Exemption Orders have been obtained. The parents of these children told me they got the “Order” in order to prevent a fine, as they did not want them to be vaccinated at that time. The Saddleworth magistrates have granted no less than about 1,000 Orders in your district. During the past year there were in the

	DELPH SUB-DISTRICT.	UPPERMILL SUB-DISTRICT.
Deaths (unvaccinated) .....	11 .....	23
Vaccinated .....	41 .....	37
Exemption Certificates.....	52 .....	92
Removals .....	8 .....	12
Children not accounted for .....	22 .....	18
Births .....	134 .....	173

*Diphtheria.*—This disease has been twice notified, once in the Uppermill and once in the Delph Sub-district. The former occurred at Marslands in June, and the latter at Barracks, Denshaw, in October. Here, also, a case of Membranous Croup was notified during October. This property at Barracks consists of a row of back-to-back houses, which discharge their sewage down a field facing the back. Much refuse is also thrown on this field. At times, the field smells very offensively. No other source of infection was obtainable. The property at Marslands was sanitarily satisfactory, as also was the milk and water supply.

*Scarlet Fever.*—This disease was notified 15 times, twice in the Delph and 13 times in the Uppermill Sub-districts. The former cases occurred in April and July at Junction, whilst the latter occurred in the following months: January 1, February 1, March 2, May 1, June 1, August 1, September 1, and November 5. Their distribution in districts was: Dobcross 3 (in one family), Husteads 3 (in one family), Shawhall Bank 3 (in one family), Greenfield 2, Quickedge 1, and Grasscroft 1. In the Dobcross cases, the closets were found defective; in the Husteads cases, the drainage was at fault; and in the case at Junction, a defective drain was found passing under one of the living rooms. Nothing

insanitary was found in the other cases. All the houses were thoroughly disinfected (Formalin being used in some of them) and isolation insisted on.

*Enteric Fever.*—Fifteen cases were notified, 4 in the Delph and 11 in the Uppermill Sub-districts. The former occurred in May 1, September 1, October 1, and December 1; the latter, in April 2, May 1, September 1, October 2, November 4, and December 1. In the Delph Sub-district, 3 of the cases were in Delph, and 1 in Midgrove. In the Uppermill Sub-district, there were at Dobcross 2, Tame-water 1, Marslands 1, Diggle Edge 1, Saddleworth Fold 1, Greenfield 3, and Royal George 1. Of the Delph cases, the one at Midgrove alleges that he caught it by emptying sanitary pails; whilst of the three others, one had defective drainage and one insufficient privy accommodation. Of the cases in the Uppermill Sub-district, two were infected away from home. At the Huts, Greenfield, sewage was found lying stagnant, and at Grasscroft, the closet was uncleansed. In the remaining instances nothing of an insanitary condition was found. Most of them have been since abated.

*Erysipelas.*—Eleven cases were notified, 5 in the Delph and 6 in the Uppermill Sub-districts. The cases in the Delph Sub-district occurred: January 1, March 2, November 1, and December 1. Those in the Uppermill Sub-district occurring in January 1, April 1, May 1, September 1, and December 2. Their distribution in localities, in the Delph Sub-district was: at Delph 4, Junction 1, Waterhead 1. In the Uppermill Sub-district: Greenfield 2, Dobcross 3, and Heathfields 1. Nothing of an insanitary nature was discovered.

*Lead Poisoning.*—No cases of Lead Poisoning have occurred.

*Rabies.*—The Muzzling Order is still in force, though I am unaware of any cases of Rabies in dogs or other animals.

*Dairies and Cowsheds.*—I have frequently pointed out that if it was important for people to have fresh air and light, it was equally important for the animals that gave food to the people to have them. The Farmers' Association has done very good work in this direction, and many farmers have expressed their intention of enlarging their cowsheds. No effort should be relaxed in effecting this object, for the want of fresh air, light, and cleanliness in cowsheds is a very powerful factor in causing cows to suffer from grapes or consumption. The milk being contaminated is then liable to cause consumption in consumers, and when one remembers that one unhealthy animal can contaminate the milk from the entire herd, the importance cannot be over-estimated.

*Scavenging and Refuse Removal.*—This is done by the occupiers of houses, but only inefficiently. A Tip is provided at Greenfield. The Authority itself should undertake the removal of refuse.



*Water Supply.*—Saddleworth is so well supplied with water that the Ashton, Dukinfield, and Stalybridge Corporations, who have already made waterworks at Bill's o' Jack's, are now making new ones a little higher up the valley. The gathering grounds are good, and are scarcely liable to pollution. The Oldham Corporation have made waterworks at Castleshaw, at Piethorn, and at New Year's Bridge. They are also making new waterworks at Ruden, the gathering grounds of which include a portion of Saddleworth. It is regrettable that the inhabitants of Denshaw should not have taken precautionary measures to secure the privilege of water from the New Year's Bridge reservoir. This, no doubt, could now be obtained, and by means of a Hydraulic Ram, could be distributed to the higher levels of the district. I am indebted to Mr. Rothwell, Secretary to the Ashton, Stalybridge, and Dukinfield Waterworks, for the following information :

Houses supplied in Saddleworth R. S. D. ....	1006
„ „ Uppermill U. S. D. ....	406

This water, though somewhat ferruginous, is of a good potable character. Many people, however, still persist in drinking water from surface wells in spite of frequent warnings as to the suspicious character of the water, which is often polluted from manured fields. I cannot therefore too strongly urge the importance of having all the houses supplied from the Greenfield Waterworks wherever possible.

The laying down of sewers and erection of sewage works was completed and brought into action on December 31st, 1896. The connections of the houses with the sewers have also been made to a large extent. The mill-owners have in many more cases provided for the treatment of their effluents. The sewerage schemes are three distinct ones, and are as follows :

1. The Delph, Dobcross, and Diggle ;
2. The Greenfield and Friezland ;
3. The Royal George and Grasscroft.

These Schemes were made by Mr. McCallum, of Manchester. The sewage is to be purified by filtration through beds of polarite covered with sand, which have the effect of oxidizing the organic matter in the sewage, and thus rendering it innocuous. If sufficiently purified, the effluent is at once discharged into the River Tame, but if not sufficiently pure it is afterwards run into land specially purchased for that purpose, where the requisite purification is effected. The Polarite Filter Beds are only used six hours out of the twenty-four, in order to give them the necessary rest.

In the DELPH, DOBCROSS, and DIGGLE SCHEME, sewers are laid from Brownhill to Linfitts, through Tamewater and Delph. Branches are received from New Delph (as far as Lower Stones), Midgrove, Dobcross, and Diggle, as far as Sam Lane. The Sewage is received at the Out-fall Works near Brownhill Bridge, for all the houses are now connected with the sewers.

The ROYAL GEORGE and GRASSCROFT SCHEME has laid down sewers from near Greenfield Station to Royal George, receiving branches from Shawhall and Grasscroft; the Sewage Works are near the River Tame, close to Wright Mill. The houses have, for the most part, been connected with the sewers.

The GREENFIELD and FRIEZLAND SCHEME has laid down sewers from near Greenfield Station to Waterside, receiving branches from Ladhill and Horsforth. The Works are near the River, and close to Wellington Mills. They are now receiving sewage, the houses having all been connected with the sewers.

The following valuable information respecting the Outfall Works has been supplied by T. S. McCallum, Esq., C.E. :

	No. 1. DELPH, DIGGLE, AND DOBCROSS.	No. 2. ROYAL GEORGE AND GRASSCROFT.	No. 3. GREENFIELD AND FRIEZLAND.
Date completed and brought into action	December 31st, 1896	December 31st, 1896	December 31st, 1896
Engineer	Mr. T. S. McCallum	Mr. T. S. McCallum	Mr. T. S. McCallum
Sanctioned by Local Government Board	Yes	Yes	Yes
Population in houses drained	4,160	990	1,600
Average daily flow of Sewage in dry weather	41,600 gallons	9,900 gallons	16,000 gallons
Nature of Sewage	Domestic	Domestic	Domestic
Is surface water included ?	Only a portion	Only a portion	Only a portion
<b>LAND :</b>			
Area	4½ acres	1 acre	2½ acres
Whether underdrained and how	Partially	Not yet executed	Not yet executed
Nett area upon which sewage can be treated	1¼ acres	¾ acre	1 acre
<b>TANK :</b>			
No. and total capacity	2 Tanks, of 17½ft. diam. 12ft deep each ; Capacity, 36,079 gallons	Tank, 14ft. diam. 10ft. deep 9,583 gallons	Two Tanks, 13ft. diam. 9ft. deep each 14,931 gallons.
Used altogether or in series	Used together or singly, according to flow	Together or singly	Together or singly
Whether flow of sewage continuous or time allowed for settlement	Continuous flow	Continuous flow	Continuous flow
<b>CHEMICALS :</b>			
Nature	Alumino-ferric	Alumino-ferric	Alumino-ferric
Quantity	About 9 cwt. per week	About 5 cwt.	About 6 cwt.
How added	Basket in inlet channel	Basket in inlet channel	Basket in inlet channel
<b>FILTERS :</b>			
No. and total area	3 Beds each, 28¾ x 15 ft. 144 square yards	2 Beds each, 14¼ x 12 ft. 38 square yards	2 Beds, 17¼ x 15 ft. 57 square yards
Construction	About 2 ft. 5 in. Filtering material in centre, made up as follows : Sand, 7in. Polarite, 6in., mixed with 4in. of sand, 2 of pea gravel, 3 of bean gravel, 2 of walnut gravel, and 5 of boulder	Same as No. 1	Same as No. 1
Whether used intermittently or continuously	Intermittently	Intermittently	Intermittently
<b>STORM OVERFLOWS :</b>			
No. on line of sewers and at Out-fall Works	7 on Sewers, 1 at Works	2 on Sewers, 1 at Works	3 on Sewers, 1 at Works
Constuction, whether fixed side weirs, leaping weirs, or adjustable valves	Fixed weirs on Sewers, automatic arrangements at Works	Fixed weirs on Sewers, automatic arrangements at Works	Fixed weirs on Sewers, automatic arrangements at Works
Proportion of flow in sewer to average flow when storm overflows begin to act	7 to 10 times	7 to 10 times	7 to 10 times
<b>COST OF</b>			
Land	£1,103	£324	£714
Laying out of Land	Not yet completed	Not yet completed	Not yet completed
<b>SLUDGE.</b>			
Pumping Expenses	Run into lagoons, dried, and used as manure	Run into lagoons, dried, and used as manure	Run into lagoons, dried, and used as manure
	None	None	None



METEOROLOGICAL REPORT.—I am indebted to Charles J. Batley, Esq., Assoc. M. Inst. C. E., and Resident Engineer at Piethorn, for the following Meteorological Report :

RAINFALL AT CASTLESHAW.

Gauge, 875 feet 6 inches above sea-level, 4 feet above ground.

Diameter of Funnel, 8 inches.

1898.	RAINFALL.	Greatest fall in 24 hours.		No. of days on which rain fell.
	Inches.	Date.	Inches.	
January .....	3'27	5	'70	14
February ...	3'45	28	'37	20
March .....	1'72	17	'46	11
April .....	2'85	11	'99	16
May .....	3'24	10	'77	19
June .....	4'08	21	'88	16
July .....	'69	18	'18	10
August .....	5'92	3	'92	15
September ...	'75	29	'20	13
October .....	5'51	18	1'05	19
November ...	2'71	2	'61	21
December ...	4'88	26	'87	23
	39'07			197

The rainfall at Castleshaw, for the year 1898, has been slightly below the average for the past 11 years, the severe droughts in the months of July and September being somewhat counterbalanced by the large rainfalls in June, August, October, and December.

No severe storms have visited the district during the year, and on only one occasion has the fall been in excess of 1 inch during the 24 hours, but light and persistent rains have been recorded, and during the periods of drought, which were both severe and prolonged, heavy dews compensated in part for the need of rain, and maintained throughout the hottest periods of the year both crops and vegetation in their verdure.

There are 32 miles, 7 furlongs, and 143 yards of main roads in Saddleworth, divided as follows :

- Greenfield and Shepley Lane Head, 4 miles, 7 furlongs, 90 yards.
- Huddersfield and New Hey, 3 miles, 2 furlongs.
- Oldham and Ripponden, 6 miles, 7 furlongs, 70 yards.
- Oldham and Standedge, 9 miles, 4 furlongs, 149 yards.
- Ridge Hall Lane and Hole House Trust, 176 yards.
- Shawhall Bank, 3 furlongs, 40 yards.
- Stockport and Ashton, 1 mile, 6 furlongs, 196 yards.
- Wakefield and Austerlands, 4 miles, 3 furlongs, 101 yards.
- Stayley Trust, 3 furlongs, 201 yards.

The number of vagrants relieved at the Workhouse was 6,488, of which 5,642 were men, 690 women, and 120 children. There were 8 deaths there, 4 males and 4 females.

Altogether, the year has been a satisfactory one, the death-rate is low, the birth-rate higher than in 1897. The infant mortality is fairly low, though higher than in the previous year. The zymotic death-rate is lower than any I have information of, and the number of notifiable diseases was 23, less than it was in 1897. Perhaps the most noteworthy occurrence was the epidemic of Mumps during the latter part of the year, and the very large number of Exemption Orders granted. People are living in better houses, and with better hygienic surroundings. The water supply is good, and considerable attention is now being made to the milk supply. The better housing of cattle, the systematic vaccination of all unvaccinated people, and the systematic removal of refuse by the Sanitary Authority, are the chief things that want improving. Altogether, the year has been a most satisfactory one.

The Nuisance Inspector's Report is appended.

I am, Gentlemen,

Yours faithfully,

W. H. F. RAMSDEN.

# NUISANCE INSPECTOR'S REPORT

FOR THE YEAR 1898.

NUISANCES.	Unabated 1897.	Examined 1898.	Abated 1898.	Unabated 1898.
Accumulation of Ashes and Offensive Matter .....	...	20	19	1
Privies and Ashpits requiring Emptying and Cleansing .....	...	45	45	...
Defective Drainage .....	1	6	5	2
Insufficient Closet Accommodation .....	5	4	8	1
Number of Closets ordered to be erected .....	5	4	8	1
Defective Construction of Closets .....	...	6	5	1
Filthy Houses and Places .....	...	5	5	...
Fouling of Water .....	1	2	2	1
Filthy Matter lying exposed .....	...	7	6	1
Slopstone Pipes disconnected and trapped .....	1	6	7	...
Keeping Pigeons in houses .....	...	2	2	...
Sewage Matter lying stagnant.....	...	6	6	...
TOTAL ...	13	113	118	8

Slaughter Houses Examined .....	19
Number of Slaughter Houses registered.....	19
Plans of New Property submitted .....	16
Number of Houses erected .....	47

JOHN T. BRADBURY, *Nuisance Inspector.*

